REMARKS/ARGUMENTS

Reexamination and reconsideration of this Application, withdrawal of the rejection, and formal notification of the allowability of all claims as now presented are earnestly solicited in light of the above amendments and remarks that follow.

Pending Claims

Claims 1-45 are pending in the application. Claims 35-45 have been added. The new claims are fully supported by the specification and do not introduce new matter. For example, support may be found on pages 7, 11, and 18, as well as in original Claim 15. Claims 2-3, 8, 12, 16-20, 22-23, 28, and 34 have been amended to address minor clerical errors, such as by addition of a comma or period or by modification of Markush language. These minor amendments are not considered to narrow the scope of the claims and are not offered in response to any rejection of record.

Section 102 Rejection

Claims 1-35 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,672,662 to Harris *et al.* The Examiner alleges that the cited reference discloses PEG polymers monosubstituted with propionic or butanoic acids and states, without elaboration, that the cited art teaches polymers "having features and characteristics as claimed." Applicants respectfully traverse this rejection.

Applicants' Claimed Invention

As noted in Applicants' specification, difficulty in removing high molecular weight impurities is one problem associated with the synthesis of high molecular weight polymer reagents, particularly when the synthesis is complex and involves multiple steps that can lead to formation of a variety of undesirable polymeric byproducts. High molecular weight polymer byproducts and unreacted starting materials can be difficult to remove from the desired final product without utilizing time-consuming and expensive chromatographic techniques.

The present invention provides a method for forming high molecular weight polymeric reagents that avoids the creation of high molecular weight polymeric byproducts by reacting a

relatively simple high molecular weight polymer with a smaller polymeric segment, wherein the smaller polymeric segment can be manipulated to form a desired functional group and purified prior to reaction with the higher molecular weight polymer. Thus, any impurities introduced during synthesis steps involving the smaller polymeric segment can be removed prior to contact with the high molecular weight polymer, which helps to avoid creation of high molecular weight impurities in the final product.

The resulting polymer derivative is described in independent Claims 1, 13-14, 20, and 26, and a method for forming such polymeric derivatives is described in independent Claim 27. As noted in Claim 1, the polymer derivative of the invention comprises two polymeric segments, a higher molecular weight segment having at least 200 repeating units and a smaller polymeric segment comprising no more than about 120 repeating units. The two segments are attached via a linkage moiety. Consequently, each claim recites the presence of at least two polymeric segments covalently linked together.

The Cited Art

The cited Harris reference is directed to polymers functionalized with propionic or butanoic acid groups useful for conjugation to biologically active substances. However, there is absolutely no disclosure in the Harris patent of a polymer derivative comprising two separate polymeric segments, wherein one polymeric segment comprises at least about 200 repeating units and the other polymeric segment comprises no more than about 120 repeating units, the two polymer segments being covalently attached through at least one linkage, as required by independent Claims 1, 13, 20, and 26. Similarly, there is no disclosure of the subject matter of independent Claim 14, which similarly recites the presence of two distinct polymeric segments attached by a linking group, or independent Claim 27, which recites a method of forming a polymer comprising reacting two polymer segments having a different range of monomer units.

In fact, the cited reference contains no disclosure of any polymer derivatives comprising more than a single polymer chain. There is certainly no disclosure in the Harris reference of a polymer comprising two covalently-linked polymeric segments having different molecular weights. Since the cited reference clearly fails to teach or suggest the subject matter of

Applicants' claimed invention, Applicants respectfully request reconsideration and withdrawal of this rejection.

It is believed that all pending claims are now in condition for immediate allowance. It is requested that the Examiner telephone the undersigned should the Examiner have any comments or suggestions in order to expedite examination of this case.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,

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CERTIFICATION OF FACSIMILE TRANSMISSION

I hereby certify that this paper is being facsimile transmitted to the US Patent and Trademark Office at Fax No. (703) 872-9306 on the date shown below.

Tracey S. Wright — 12/19/03
Tracey S. Wright — Date